

### Legend to soundtracks for catalytic domains of cell signalling proteins.

These melodies were produced by Dr. William Campbell (bc@biomimesolutions.com) and are based on the hydrophobicity of the amino acids in each protein. High notes correspond to amino acids with high hydrophilicity while the low notes correspond to the most hydrophobic amino acids. The order of the musical notes follow the order of the amino acid residues in the sequence of each protein.

Name of Music File	Name of Cell Signalling Protein	Family of Cell Signalling Protein Represented	PDB Number	Name of Animation File	Species Represented	Amino Acid Span Represented in Notes	DNA	Protein	Duration	Note	Tempo	Scale
EGF receptor (671-998).mid	Epidermal growth factor receptor catalytic domain	Protein kinase	1M17	ProteinKinase1M17.mp4	<i>Homo sapien</i>	671-998	Bowed glass	Bowed glass	Twice	1/4	100	Kyte Doolittle
PI3K phosphatidylinositol 3-kinase.mid	Phosphatidylinositol 3-kinase p110	PI3-kinase-related protein kinase	1E7V	PI3KRRKinase.1E7V.mp4	<i>Sus scrofa (Pig)</i>	141-1102	Slow strings	Tremolo strings	Full	1/8	120	
Human protein-tyrosine-phosphatase 1b.mid	Protein-tyrosine phosphatase 1B	Protein-tyrosine phosphatase	1G1G	Prot-TyrPhosp.1G1G.mp4	<i>Homo sapien</i>	1-299	Slow strings	Tremolo strings	Full	1/4	120	Pentatonic
Human VH-1 related dual specificity phosphatase VHR.mid	VH1-related dual specificity protein phosphatase VHR	Dual specificity phosphatase	1J4X	DualProtPhosp.1J4X.mov	<i>Homo sapien</i>	2-185	Bowed glass	Tubular bells mark tremolo strings	Full	1/8	70	
Human protein-serine phosphatase 2B calcineurin.mid	Protein-serine phosphatase 2B (calcineurin)	Protein-serine phosphatase	1AUI	Prot-SerPhosp.1AUI.mp4	<i>Homo sapien</i>	2-185	Glockenspiel	Music box	Twice	1/4	100	Kyte Doolittle
Human phospholipase A2-11A.mid	Phospholipase A2 – IIA	Phospholipase A2	1BBC	PLA2.1BBC.m	<i>Homo sapien</i>	2-144	Tremolo strings	Tremolo strings	Full	1/8	60	Kyte Doolittle
Rat Phosphoinositide-Specific Phospholipase C-delta1.mid	Phosphatidylinositol-specific phospholipase C-delta1	Phospholipase C	1DJX	PLC.1DJX.mp4	<i>Rattus norvegicus (Rat)</i>	133-756	Harpicord	Harp	Full	1/8	50	Pentatonic
Adenylate cyclase V C1A domain.mid	Adenylate cyclase type 5 C1A domain	Nucleotide cyclase	1CJK	Nucl.Cycl.1CJK.mp4	<i>Canis familiaris (Dog)</i>	445-661	Glockenspiel	Vibraphone	Full	1/8	60	Kyte Doolittle
Human cGMP-specific 3',5' cyclic phosphodiesterase.mid	cGMP-specific 3',5'-cyclic phosphodiesterase	Cyclic nucleotide phosphodiesterase	1UHO	PDE.1UHO.mp4	<i>Homo sapien</i>	537-860	Koto	Pan flute	Full	1/8	50	Kyte Doolittle
Rat G protein Gi alpha 1.mid	G protein Gia1 subunit	G protein alpha	1ASO	GProtein.1ASO.mp4	<i>Rattus norvegicus (Rat)</i>	1-353	Tremolo strings	Harp	Full		100	Kyte Doolittle
Human H-ras.mid	H-Ras	Small GTPase	121P	Ras.121P.mov	<i>Homo sapien</i>	1-166	Harpicord	Glockenspiel	Full		100	C major pentatonic C major
Human caspase 8 (version 2).mid	Caspase 8 p18	Death protease	1QTN	Caspase.1QTN.mp4	<i>Homo sapien</i>	211-374	Fret noise	Fret noise	Full		100	C major